

REMARKS

Claims 11-23 are pending in this application and stand rejected. Claims 1-10 were previously canceled. Claim 11 has been amended in a non-narrowing manner to delete a numerical reference and to correct punctuation. No new matter has been added.

CLAIM REJECTIONS - 35 USC §103

At page 2 the Office Action rejects claims 11-12, 14-18 and 20-23 under 35 U.S.C. 103(a) as obvious over BEWICK-SONNTAG et al. (US 6,232,521). Applicants respectfully traverse the rejection.

Claim 11 is directed to a breathable backsheet that includes in part, a water vapour permeable first layer and a water vapour permeable second layer, a condensation zone between the first and second layers, and a hydrophobic distance element placed in the condensation zone creating a space between the first layer and the second layer. The condensation zone is adapted to temporarily condense and store an amount of water vapor. The first and second layers are liquid impermeable. The first layer is adapted to allow a first amount  $m_1$  of mass flow water vapour to pass, and the second layer is adapted to allow a second amount  $m_2$  of mass flow water vapor to pass, wherein  $m_2$  is less than or equal to  $m_1$ . BEWICK-SONNTAG fails to teach or suggest a breathable backsheet having this combination of features.

BEWICK-SONNTAG describes an absorbent article that includes a liquid pervious top sheet, an absorbent core and a backsheet. The backsheet comprises a liquid permeable polymeric film having unidirectional liquid transfer towards the core (see, column 2, lines 38-43 and column 5, lines 52-67). In contrast to BEWICK-SONNTAG, claim 11 features a backsheet "wherein the first and second layers are liquid impermeable" (emphasis added).

BEWICK-SONNTAG further describes a backsheet that permits the transfer of vapor and air. A first layer (25) comprises a gas permeable apertured polymeric film and a second layer (26) comprises a gas permeable fibrous fabric layer. The first and second layers preferably have a similar relative void volume (see, column 6, lines 1-6). Although BEWICK-SONNTAG describes vapor permeable layers, BEWICK-SONNTAG fails to provide any details regarding water vapor mass transport through the two layers. In particular, BEWICK-SONNTAG fails to teach or suggest a first and second layer adapted to allow a difference between the  $m_1$  mass flow water vapor and the  $m_2$  mass flow water vapor, as recited in claim 11.

BEWICK-SONNTAG also fails to teach or suggest a backsheet having a condensation zone between the first and second layers as featured in claim 11. BEWICK-SONNTAG describes a backsheet wherein all of the layers of the backsheet are substantially in intimate and direct contact with one another (see, column 6, lines 10-12). Although BEWICK-SONNTAG discloses

that the backsheet may comprise additional layers (see, column 6, lines 8-9), the BEWICK-SONNTAG construction implies that no condensation zone is achieved. In particular, BEWICK-SONNTAG fails to teach or suggest a condensation zone adapted to temporarily condense and store an amount of water vapor, as recited in claim 11.

Claim 11 further includes a backsheet comprising a hydrophobic distance element placed in the condensation zone creating a space between the first layer and the second layer. BEWICK-SONNTAG fails to teach or suggest any such hydrophobic distance element. BEWICK-SONNTAG describes a first layer may be made of any material known in the art, but is preferably manufactured from commonly available polymeric materials. The second layer comprises a gas permeable fibrous fabric layer composed of polymeric fibers such as polymeric non-wovens known in the art. The fibers can be made of any polymeric material, in particular, fibers made of polyethylene, polypropylene, polyester polyacetate, or combinations thereof, and also mixtures of synthetic fibers and non-absorbent natural fibers or treated natural fibers such as cotton (see, column 6, lines 31-43). Nowhere does BEWICK-SONNTAG teach or suggest any type of hydrophobic distance element, and more specifically, an element placed in a condensation zone to create a space between the first layer and the second layer, as featured in claim 11.

For all of these reasons, BEWICK-SONNTAG fails to teach or suggest, and would not have rendered obvious, a breathable backsheet having the combination of features recited in claim 11, and claims 12, 14-18 and 20-23 dependent thereon. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

Claim 12 depends from claim 11, and further recites that the hydrophobic distance element is arranged to condense water vapor within the condensation zone. As recited in the comments above, the backsheet of claim 11 includes a first layer adapted to allow a first amount  $m_1$  of mass flow water vapor to pass the first layer in the Z-direction, and the second layer is adapted to allow a second amount  $m_2$  of mass flow water vapor to pass the second layer in the Z-direction, wherein  $m_2$  is less than or equal to  $m_1$ . The condensation zone is adapted to temporarily condense and store an amount  $(t \cdot m_c)$  of water vapor. As detailed in the instant specification, the distance element can be made from a three dimensional hydrophobic distance layer comprising raised portions and depressions. The raised portions on one side of the distance layer can be in contact with the first layer and the raised portions on the other side of the distance layer can be in contact with the second layer. The depressions form spaces between the first layer and the second layer. The spaces constitute the condensation zone (see page 4, line 29 to page 5 line 4). The specification further details

that the condensation zone is an open volume between the first layer and the second layer. In one embodiment, the minimum distance between the first layer and the second layer is 0.1mm (see, page 5, lines 14-16). BEWICK-SONNTAG fails to teach or suggest any kind of hydrophobic distance element arranged to condense water vapor within a condensation zone as described in the specification, and as claimed in claim 12. Indeed, BEWICK-SONNTAG specifically states that "all of the layers of the backsheet can be substantially in intimate and direct contact with one another." (see, column 6, lines 10-12). In addition, the examples detailed in BEWICK-SONNTAG fail to provide any other type of configuration or arrangement. For this additional reason, BEWICK-SONNTAG fails to teach or suggest and would not have rendered obvious a backsheet having all of the features recited in claim 12.

Claim 13 depends from claim 12 and recites that the hydrophobic distance element comprises a number of hydrophobic particles. The Office Action states that it would have been obvious to provide a number of hydrophobic particles as opposed to the one particle taught by BEWICK-SONNTAG (emphasis added). The Office Action, however, fails to identify the "one particle" taught by BEWICK-SONNTAG. Applicants assert that BEWICK-SONNTAG fails to teach or suggest any type of hydrophobic particle. For at least this additional reason, BEWICK-SONNTAG fails to teach or suggest, and would not have rendered obvious, claim 13.

At page 3, the Office Action rejects claim 19 under 35 U.S.C. 103(a) as obvious over BEWICK-SONNTAG et al. in view of NODA et al. (US 2001/0044611). Applicants respectfully traverse the rejection.

As stated in the comments above, BEWICK-SONNTAG fails to teach or suggest a breathable backsheets having all of the combination of features recited in claim 11. Furthermore, as recited in claim 11, the condensation layer is an open volume between the first layer and the second layer. BEWICK-SONNTAG and/or NODA, alone or in combination, fail to teach or suggest an open volume condensation zone. For this additional reason, BEWICK-SONNTAG and NODA fail to teach or suggest, and would not have rendered obvious, the breathable backsheets according to claim 19. Applicants respectfully request reconsideration and withdrawal of this rejection.

#### CONCLUSION

Entry of the above amendments is earnestly solicited. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or

credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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